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HIV Infection

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18. HIV Infection

Introduction

The human immunodeficiency virus (HIV) epidemic is a multifaceted national and international problem. Without treatment, within 10 years of infection with HIV, about 50 percent of people develop acquired immunodeficiency syndrome (AIDS) and another 40 percent or more develop other clinical illnesses associated with HIV infection.¹⁸ More than 115,000 cases of AIDS had been reported by the end of 1989.³ By the end of 1993, a projected total of 390,000 to 480,000 cases of AIDS will have been diagnosed in the United States and 285,000 to 340,000 people will have died from the disease.⁹ People with HIV infection can develop severe opportunistic infections, Kaposi's sarcoma, and multiple-system medical complications. Many also experience social ostracism and discrimination. Although some antimicrobial agents may extend survival, no treatment is available to prevent death among people with AIDS. AIDS has become the seventh leading cause of years of potential life lost (before age 65) in the United States,⁸ and it is the leading cause of death among intravenous drug abusers and people with hemophilia.¹¹

An estimated 1 million people in the United States are infected with HIV and of these at least 40,000 became infected in 1989.⁹ Despite uncertainty about the incidence of HIV infection and the ultimate magnitude of the problem, HIV and AIDS are a growing threat to the health of the Nation and will continue to make major demands on health and social service systems for many decades. Annual costs of AIDS are projected to climb as high as \$5 billion to \$13 billion by 1992.⁶ These cost estimates do not include expenditures for expanded use of specific antiviral drugs, such as zidovudine (AZT) in asymptomatic HIV infected people. Because there is no known cure for AIDS, the first priority of the public health system must be to halt the spread of HIV infection.

Since the first cases of AIDS were identified in 1981 and HIV was recognized as the etiologic agent in 1984, great strides have been made in understanding HIV infection, its clinical outcomes, and its epidemiology. Prospects for the availability of a safe and effective HIV vaccine before the year 2000 are uncertain. Vaccine development is a high priority, and experimental vaccine candidates for both infected and uninfected people are in early testing stages. Some therapeutic agents slow replication of the virus and give hope to people infected with HIV. Other drugs are successful in the treatment and the prevention of some opportunistic infections associated with AIDS.

New prevention and control strategies must be adopted nationwide. Many of the HIV-infected people in the United States are unaware that they harbor the virus. Counseling and testing are imperative to help infected people adopt behaviors that prevent them from infecting others, to prevent or reduce adverse psychological reactions, to help uninfected individuals maintain behaviors that reduce their risk of infection, to help spouses and sexual partners of infected people adopt infection-preventing behaviors, and to provide HIV infected people with early medical intervention that can prolong life.

The HIV epidemic in the United States is composed of several interrelated but separate epidemics, each with its own dynamics. The populations most affected and the resources available to treat and combat the spread of HIV differ markedly in different areas and populations. Racial and ethnic populations, especially blacks and Hispanics, have been disproportionately affected by HIV.

In addition to the challenges presented by the multiplicity of linguistic, cultural, racial, and ethnic groups, the epidemic in minority populations is complicated because many of those infected may be economically and educationally disadvantaged and underserved by the health care system. In all communities, effective plans for the prevention and control

of HIV must take into account the local characteristics of the epidemic and community resources available to help those at risk. Communities therefore need to be involved in developing their own prevention programs.

The number of reported AIDS cases among Alaska Natives, Asian Americans, and Pacific Islanders is low compared to their relative population sizes. This may create opportunities to prevent transmission in these populations and to maintain low incidence rates. In addition, studies of HIV seroprevalence in these populations may reveal whether future changes in AIDS incidence may be expected.

Two important components of HIV prevention are increasing the number of people who receive HIV counseling and testing and encouraging the adoption and maintenance of low- or no-risk behaviors. New therapies have been developed that extend the life of people with AIDS and slow the progression of HIV infection to AIDS. Failure of people infected with HIV to be tested is an obstacle to preventing spread of the infection to sexual or needle-sharing partners.

People are less likely to be tested if they fear discrimination. Those with HIV infection encounter discrimination in employment, housing, schools, and medical services. Preventing or resolving discrimination, even in the health care setting, appears to require the force of law, as well as education about HIV infection with a particular emphasis on modes of HIV transmission.

Currently, a number of laws prohibit discrimination against people with HIV infection. For example, some States have extended protection for the handicapped to people with HIV infection. The reach of these State laws varies widely. State laws are most likely to address only employment or public accommodation discrimination, leaving unaddressed discrimination in other critical areas such as health care. The passage of the Americans with Disabilities Act (ADA) will help protect people with AIDS and HIV infection from discrimination and will extend this protection nationwide.

Concerted efforts by State and local health agencies and community organizations are necessary to implement effective culture- and age-specific risk reduction programs. Such programs should aim to reduce high-risk behavior for HIV infection throughout the entire population, with particular emphasis on high-risk groups such as people with large numbers of sexual partners, adolescents (both within and out of school), intravenous drug abusers and sex partners of drug abusers, men who have sex with men and their male or female partners, people who exchange sex for money or drugs, and people already infected with HIV. Adolescents and young adults are particularly at risk since many of them engage in high-risk behaviors, believing themselves to be invulnerable to infection.

Note: Except as otherwise noted, all rates in the following objectives are annual. Where the baseline rate is age adjusted, it is age adjusted to the 1940 U.S. population, and the target is age adjusted also. If a rate is age adjusted, the crude baseline rate may be found in Appendix D.

Health Status Objectives

18.1 Confine annual incidence of diagnosed AIDS cases to no more than 98,000 cases. (Baseline: An estimated 44,000 to 50,000 diagnosed cases in 1989)

Special Population Targets

	Diagnosed AIDS Cases	1989 Baseline	2000 Target
18.1a	Gay and bisexual men	26,000-28,000	48,000
18.1b	Blacks	14,000-15,000	37,000
18.1c	Hispanics	7,000-8,000	18,000

Note: Targets for this objective are equal to upper bound estimates of the incidence of diagnosed AIDS cases projected for 1993.

Baseline data source: Center for Infectious Diseases, CDC.

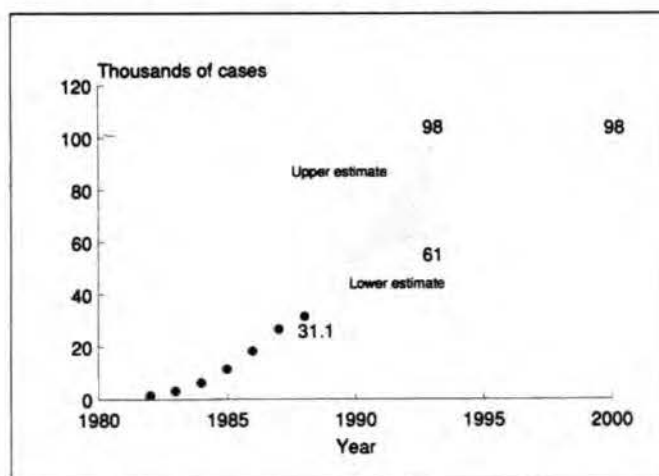


Fig. 18.1

Incidence of AIDS cases

The most important measure of progress in controlling the AIDS epidemic is the annual incidence of HIV infection. However, measuring reductions in the incidence of HIV infection would require that the same population be tested in a base period and tested again some time later to measure change. In comparison, the incidence of diagnosed AIDS cases is readily available and easy to track over time. AIDS diagnosis must be reported in all 50 States, the District of Columbia, and the U.S. Territories. A uniform case definition and case report form are used in each of these jurisdictions to report AIDS diagnosis.

Since the progression of HIV infection to AIDS is as high as 50 percent among untreated HIV-infected adults monitored for 10 years, the incidence of AIDS cases is a meaningful proxy for measuring progress in reducing the incidence of HIV infection. Various factors (e.g., age, duration of infection) that influence progression of the disease from asymptomatic HIV infection to AIDS have been recognized but require further study.

Continued progress in drug development and improvements in therapies to control the expression of HIV infection will improve ability to postpone illnesses associated with the development of AIDS. As a result, the number of HIV-infected people seeking chemoprophylaxis will grow during this decade. If chemoprophylaxis is successful, fewer people with HIV will develop AIDS; such progress will necessarily distort the measure used by this objective (incidence of AIDS cases).

The existence of medical interventions that can postpone onset of AIDS may encourage people whose behaviors put them at risk for HIV infection to seek HIV testing, creating new public health opportunities for counseling to prevent further spread and for partner

notification. Currently, many people infected with HIV do not know they are infected and do not receive the counseling they need to avoid infecting others.

Although the year of peak annual incidence of AIDS cannot be predicted, prevention activities, including counseling to prevent further transmission and medical interventions to slow progression of HIV infection to AIDS, begun in the 1980s should show results in the 1990s. This objective sets as its target holding AIDS incidence to no more than the 1993 level. Achieving this target will require the concerted efforts of primary and secondary school teachers, health care providers, Federal, State, and local governments, community groups, youth-serving agencies, employers, and colleges and universities. Each has an important role to play in preventing further transmission of HIV.

18.2 Confine the prevalence of HIV infection to no more than 800 per 100,000 people. (Baseline: An estimated 400 per 100,000 in 1989)

Special Population Targets

	<i>Estimated Prevalence of HIV Infection (per 100,000)</i>	<i>1989 Baseline</i>	<i>2000 Target</i>
18.2a	Homosexual men	2,000-42,000 [†]	20,000
18.2b	Intravenous drug abusers	30,000-40,000 [‡]	40,000
18.2c	Women giving birth to live-born infants	150	100

[†]Per 100,000 homosexual men aged 15 through 24 based on men tested in selected sexually transmitted disease clinics in unlinked surveys; most studies find HIV prevalence of between 2,000 and 21,000 per 100,000

[‡]Per 100,000 intravenous drug abusers aged 15 through 24 in the New York city vicinity; in areas other than major metropolitan centers, infection rates in people entering selected drug treatment programs tested in unlinked surveys are often under 500 per 100,000

Baseline data source: Center for Infectious Diseases, CDC.

Meaningful objectives to measure a change in the prevalence of HIV infection are challenging to formulate. Prevalence—the number of people with infections in a given population at a particular time—is usually expressed as a rate, such as percentage of the population infected or the number of infected people per 1,000 or 100,000 people in the population. Prevalence estimates require two pieces of information: the number of infected people and the total number of people within a given population. The true prevalence of HIV infection is difficult to estimate because it is hard to test an unbiased sample and the total size of the population group is rarely known. In addition, not only are newly infected people free of symptoms, the possibility of discrimination discourages people from participating in prevalence studies.

The Public Health Service has been able to document the magnitude of the HIV epidemic through examination of data on the prevalence of HIV infection among certain populations, using many separate surveys of childbearing women, young (aged 15 through 24) homosexual men visiting sexually transmitted disease (STD) clinics, and young (aged 15 through 24) intravenous drug abusers using drug abuse treatment facilities. These measures provide a rough indication of the prevalence of HIV infection; over time, they can describe trends among sentinel populations.

A useful proxy for measuring and tracking HIV prevalence is its prevalence among people whose behavior puts them at risk for infection. One such group is homosexual men who seek services at sexually transmitted disease clinics. Blood samples taken and analyzed in these clinics suggest that a substantial decline in the incidence of new infections in homosexual men has occurred. Recent data from the large San Francisco cohort showed almost no new infections in 1987. Considerable evidence points to reduced high-risk sexual behavior among white homosexual men, although data show some relapse to high-risk behavior in this group and continued risk-taking behavior among gay youth.¹⁷

Insight into the prevalence of HIV infection also may be gained through blood sampling in drug abuse treatment (mainly methadone maintenance) centers.¹³ Prevalence rates as high as 7 percent of drug abusers sampled were found in one group in New York City in 1987.¹²

HIV infection among illicit drug abusers is likely to continue to increase because of continuing exchange of sex for drugs.⁷ Effective programs may include comprehensive drug abuse treatment and outreach that includes information, education, and counseling to encourage entrance into drug abuse treatment programs, use of clean needles, testing for HIV infection, and the prevention of unwanted pregnancies. Programs should also target minority adult and adolescent women who are drug abusers or the sexual partners of drug abusers.

Newborn infants throughout the country are routinely screened for treatable metabolic disorders by blood samples collected shortly after birth. These samples can also be tested for the presence of HIV antibody that has been passively transferred from the mother, indicating that the mother is infected with HIV. It should be emphasized that HIV among women giving birth, not among their infants, is measured by this technique. Although reliable data on the prevalence of HIV among newborns is unavailable, an estimated 20 to 40 percent of the infants of infected mothers develop HIV infection.¹⁶

Most (70 percent) children with perinatally transmitted HIV come from families in which one or both parents are intravenous drug abusers. Data describing HIV infection among women giving birth to live infants (only live-born infants receive blood tests necessary to track this objective) can be used to target resources and assess the effectiveness of steps taken to prevent transmission of HIV to women of childbearing age and passively to their children. Perinatal transmission of HIV can be reduced by minimizing or eliminating risk of infection in young adults (especially women of childbearing age) and through programs that reduce drug abuse and unprotected sex among drug abusers and their partners.

Seroprevalence surveys have also been conducted on several college campuses. To avoid self-selection bias, seroprevalence was assessed through blind testing of blood specimens drawn for other purposes at college clinics. Preliminary results show only that there is HIV infection on college campuses (with a rate of approximately 200 per 100,000) and confirm that AIDS education and prevention should be targeted to this population.¹

In the absence of national estimates of the prevalence and incidence of HIV infection based on probability samples, data from STD clinics, drug abuse treatment centers, and *ad hoc* surveys of at-risk populations will remain useful for targeting prevention resources and assessing the efficacy of prevention programs.

Risk Reduction Objectives

- 18.3* Reduce the proportion of adolescents who have engaged in sexual intercourse to no more than 15 percent by age 15 and no more than 40 percent by age 17. (Baseline: 27 percent of girls and 33 percent of boys by age 15; 50 percent of girls and 66 percent of boys by age 17; reported in 1988)**

Baseline data sources: National Survey of Family Growth, CDC; National Survey of Adolescent Males.

*For commentary, see Objective 5.4 in *Family Planning*. This objective also appears as Objective 19.9 in *Sexually Transmitted Diseases*.

- 18.4*** Increase to at least 50 percent the proportion of sexually active, unmarried people who used a condom at last sexual intercourse. (Baseline: 19 percent of sexually active, unmarried women aged 15 through 44 reported that their partners used a condom at last sexual intercourse in 1988)

Special Population Targets

<i>Use of Condoms</i>		<i>1988 Baseline</i>	<i>2000 Target</i>
18.4a	Sexually active young women aged 15-19 (by their partners)	26%	60%
18.4b	Sexually active young men aged 15-19	57%	75%
18.4c	Intravenous drug abusers	—	60%

Note: Strategies to achieve this objective must be undertaken sensitively to avoid indirectly encouraging or condoning sexual activity among teens who are not yet sexually active.

Baseline data sources: National Survey of Family Growth, CDC; National Survey of Adolescent Males.

Abstinence from sexual intercourse, monogamous sexual relations with an uninfected partner, and avoidance of intravenous drug use are the most effective means of preventing HIV infection. Proper use of condoms, reducing the number of sexual partners, and abstinence from drug abuse decrease, but do not eliminate risk of HIV infection. Even with the proper use of condoms, high risk sexual behaviors, e.g., anal intercourse, should be avoided.

Although there is no absolute guarantee that using a condom will prevent people from getting sexually transmitted diseases, including HIV, risk can be greatly reduced if condoms are used properly. Failure of condoms to prevent the transmission of disease is more often caused by improper use than by product failure in the United States,⁵ where condoms must adhere to quality control standards set by the Food and Drug Administration.

To be most effective in reducing the spread of HIV, condoms and instructions for their proper use should be made more widely available through health care providers who offer services to sexually active men and women, particularly in sexually transmitted disease clinics, family planning clinics, and drug abuse treatment centers. Counselors at these facilities should become more confident in counseling patients on infection prevention and should emphasize age-appropriate assertiveness skills. Instructions in correct condom use can be obtained from *Condoms and Sexually Transmitted Diseases . . . Especially AIDS*¹⁴ or the National AIDS Hotline, 1-800-342-AIDS. More research is also needed to better understand why some people do not use condoms so that specific steps can be taken to increase their use.

At present, no national surveys accurately measure condom use for disease prevention among the total population. Existing studies are not sufficiently detailed to describe either the proportion of people who engage in high-risk behaviors and use condoms, or the proportion of high-risk sexual encounters in which condoms are being used. This objective uses the behavior of sexually active unmarried women as a proxy measure for the behavior of people who engage in high-risk sexual activity. Women aged 15 through 44 and adolescent males aged 15 through 19 are the only age groups for whom national data are gathered on condom use. For women aged 15 through 44, the data are limited to condom use for pregnancy prevention, not disease prevention.

*For additional commentary, see Objective 19.10 in *Sexually Transmitted Diseases*.

18.5 Increase to at least 50 percent the estimated proportion of all intravenous drug abusers who are in drug abuse treatment programs. (Baseline: An estimated 11 percent of opiate abusers were in treatment in 1989)

Baseline data source: National Institute on Drug Abuse, ADAMHA.

To prevent spread of HIV infection among intravenous drug abusers and their sexual partners, it is necessary to help drug abusers stop using illicit drugs. Comprehensive drug abuse treatment programs and risk reduction programs include information, education, and counseling to reduce risk, encourage testing, and prevent unintended pregnancies. Programs should target minority adults and adolescent women who are intravenous or nonintravenous drug abusers or the sexual partners of drug abusers. Because many drug abusers will not respond to treatment by stopping all drug use, the focus must also be on drug abuse prevention and abstinence from sharing drug paraphernalia.

Many children with perinatally transmitted AIDS come from families where one or both parents are intravenous drug abusers. Pediatric HIV infection is occurring disproportionately among blacks and Hispanics; 52 percent of pediatric AIDS patients are black, 25 percent are Hispanic.¹⁰

18.6 Increase to at least 50 percent the estimated proportion of intravenous drug abusers not in treatment who use only uncontaminated drug paraphernalia ("works"). (Baseline: 25 to 35 percent of opiate abusers in 1989)

Baseline data source: National Institute on Drug Abuse, ADAMHA.

As noted above, to prevent spread of HIV infection among intravenous drug abusers and their sexual partners, it is necessary to help drug abusers stop using illicit drugs. For those who cannot break their addiction, efforts are needed to reduce risk without condoning drug abuse. Some programs for drug abusers have succeeded in altering needle-sharing behavior and increasing the use of bleach to disinfect works.^{12,15} These successes have been tempered, however, by numerous frustrations and barriers. For example, researchers have reported that even when drug abusers adopt safer drug use practices, they do not necessarily change high-risk sexual behavior. Therefore, public health approaches must include persistent efforts to counsel drug abusers about both high-risk drug use practices and high-risk sexual activities. Special efforts may be necessary to reach people who abuse illegal stimulants and depressants, as well as steroid abusers who share injection equipment.

18.7 Reduce to no more than 1 per 250,000 units of blood and blood components the risk of transfusion-transmitted HIV infection. (Baseline: 1 per 40,000 to 150,000 units in 1989)

Baseline data source: Center for Biologic Evaluation and Research, FDA.

Efforts to prevent transfusion-associated HIV infection date from 1983, when voluntary self-exclusion of potential donors with high-risk behaviors was introduced. By mid-1985, tests to detect HIV antibodies were introduced nationwide by blood-collecting agencies. These advances have resulted in a blood supply that is among the safest in the world.

There are, however, recognized deficiencies in the ability of blood and plasma collecting facilities to educate donors about their own risk behaviors and to gain cooperation with voluntary self-deferral. Improvements in testing depend on scientific efforts to better define the time period between infection with HIV and the presence of antibodies and to narrow the interval between infection and detection of an indicator of infection.

Thorough evaluation of the effectiveness of testing programs intended to reduce the chances of HIV infection are needed.

Other options for reducing transfusion-transmitted diseases include several alternatives to donor transfusion such as preoperative autologous blood donation, hemodilution, perioperative blood salvage, and use of pharmacologic agents, recombinant hematopoietic growth factors, recombinant coagulation factors, and red cell substitutes. These alternatives, if used effectively, would also help conserve the nation's blood supply. Physician education—for residents, medical students, surgeons, anesthesiologists, obstetricians, gynecologists, medical directors of blood centers, and members of hospital transfusion committees—is an integral part of promoting appropriate use of transfusion and transfusion alternatives.

The adequacy of the blood supply is also an important issue. The number of blood screening tests performed has risen in recent years, resulting not only in a greater measure of safety from transfusion-transmitted diseases, but also an increased number of deferred donors. Seasonal and geographic shortages continue to plague the blood supply. An estimated 4 to 6 percent of people have donated blood within the previous year, although more than half of the population has ever donated.¹⁹ If a greater percentage of the population were current donors (donated within the previous year), and if more donors would give more frequently (more than once each year), the blood supply would be improved.

Services and Protection Objectives

- 18.8 Increase to at least 80 percent the proportion of HIV-infected people who have been tested for HIV infection. (Baseline: An estimated 15 percent of approximately 1,000,000 HIV-infected people had been tested at publicly funded clinics, in 1989)**

Baseline data source: Center for Prevention Services, CDC.

Through the expanded counseling and testing efforts necessary to achieve this objective, many people whose behavior puts them at risk for HIV infection—but who are not yet infected—will be tested, creating new opportunities to prevent the spread of HIV infection. The availability of treatments that prevent or delay development of HIV-related illnesses should be a powerful incentive for people at risk for HIV infection to be tested. Increasing the number of people who use counseling and testing services ultimately should reduce HIV transmission. Infected people can receive counseling about changing their behavior to prevent further spread of the disease and be referred for medical evaluation and treatment. Uninfected people can be counseled to change their behavior to lower their risk of acquiring the infection.

- 18.9*** Increase to at least 75 percent the proportion of primary care and mental health care providers who provide age-appropriate counseling on the prevention of HIV and other sexually transmitted diseases. (Baseline: 10 percent of physicians reported that they regularly assessed the sexual behaviors of their patients in 1987)

Special Population Target

<i>Counseling on HIV and STD Prevention</i>	<i>1987 Baseline</i>	<i>2000 Target</i>
18.9a Providers practicing in high incidence areas	—	90%

Note: Primary care providers include physicians, nurses, nurse practitioners, and physician assistants. Areas of high AIDS and sexually transmitted disease incidence are cities and States with incidence rates of AIDS cases, HIV seroprevalence, gonorrhea, or syphilis that are at least 25 percent above the national average.

Baseline data source: Lewis and Freeman 1987.

The primary purposes of counseling are to prevent further spread of HIV infection and, where possible, to slow progression of HIV to AIDS. HIV counseling can be used to (1) help uninfected individuals initiate and sustain behavioral changes that reduce their risk of infection, (2) help infected individuals adopt safe behaviors to avoid infecting others, (3) help spouses and sexual partners of infected people adopt safe behaviors, and (4) help infected people take better care of themselves.¹⁹

The U.S. Preventive Services Task Force²¹ recommends that clinicians take a complete sexual and drug use history on all adolescent and adult patients. Sexually active patients should be advised that abstaining from sex or maintaining a mutually faithful monogamous relationship with a partner known to be uninfected with HIV or other sexually transmitted diseases are the most effective strategies for avoiding infection. Patients should also receive counseling about the indications and proper methods for using condoms and spermicides in sexual intercourse. Intravenous drug abusers should be encouraged to enroll in a drug abuse treatment program and warned against sharing drug injection equipment or using unsterilized needles and syringes.

This objective is particularly challenging. Available baseline data indicate that despite heavy media and national focus on HIV and AIDS, primary care providers are not, in general, taking a complete sexual and drug use history of their patients. Strong efforts should be made to modify primary care provider behavior, focusing programs on convincing providers that their efforts are often the key to modifying the risk behavior of their patients. The special population target is intended to focus particular attention on primary care providers in cities and States that have especially high rates of HIV infection and sexually transmitted diseases.

*This objective also appears as Objective 19.14 in *Sexually Transmitted Diseases*.

- 18.10** Increase to at least 95 percent the proportion of schools that have age-appropriate HIV education curricula for students in 4th through 12th grade, preferably as part of quality school health education. (Baseline: 66 percent of school districts required HIV education but only 5 percent required HIV education in each year for 7th through 12th grade in 1989)

Note: Strategies to achieve this objective must be undertaken sensitively to avoid indirectly encouraging or condoning sexual activity among teens who are not yet sexually active.

Baseline data source: General Accounting Office.

AIDS information and education programs have increased public knowledge and influenced attitudes about HIV and AIDS. However, some misinformation still persists at

all levels of society. The first step toward reducing high-risk behaviors is for people to be able to use information about how HIV is transmitted to assess their own risk of becoming infected. Only when people know that they are at risk will they change their behavior.

Although intensive education has reduced high-risk sexual and drug abuse behaviors among some people, there is an urgent need to continue this trend and to ensure that low-risk behaviors are sustained. The public is generally aware of the linkage between intravenous drug abuse and HIV infection and of the risk for the spread of HIV infection from intravenous drug abusers to their sexual partners and children. Less well known is the risk of HIV infection among crack cocaine abusers, caused in part by the practice of exchanging sex for crack cocaine.

It is important to maintain and expand awareness for several reasons. First, educating children in school is a means of reaching the family members and sexual partners of intravenous drug abusers and crack cocaine abusers who are often difficult to contact through more focused outreach. Second, sexually active people should consider the possible drug-using practices of their current and potential sexual partners.

As of January 1990, only 29 States had policies regarding HIV/AIDS education; most of those States favored beginning such education before children reach the age of puberty, usually by 6th grade.²¹ Ideally, HIV education would reach children before they develop patterns of high-risk sexual activity and drug abuse. School- and college-age youth, especially those in areas of high HIV incidence, should be a primary target of prevention education. To be effective, such training must be direct and unambiguous. In addition to information about transmission, HIV curricula should include training in the social and personal skills students need to resist peer pressure to participate in unhealthy sexual activity and drug abuse. For example, an effective curriculum might include the components recommended in the Centers for Disease Control's *Guidelines for Effective School Health Education to Prevent the Spread of AIDS*.⁴ Special efforts will be needed to reach students who have special education needs. Optimally, HIV education should be provided as part of quality school health education. For a definition of quality school health education, see *Educational and Community-Based Programs*.

18.11 Provide HIV education for students and staff in at least 90 percent of colleges and universities. (Baseline data available in 1995)

High rates of sexually transmitted disease among students using college and university student health centers suggest that students are not practicing safe sex. For example, 40 percent of women seeking pregnancy tests at the University of Maryland student health center in 1987 tested positive for a sexually transmitted disease other than HIV.¹

In a campus environment, many students encounter new independence, self-determination, and strong peer pressure to adopt certain behaviors. Experimentation with sex, alcohol, and drug use puts these students at risk for HIV infection. Further, students may underestimate their risk of acquiring HIV infection. Risk is heightened by beliefs by young adults that they are invincible and impervious to infection.

Colleges and universities can help prevent the spread of HIV infection by assuring that their students and staff are educated about how HIV is and is not transmitted, how to prevent transmission, and how to assess their own risk of infection accurately. In a campus community, students and faculty interact in many ways, allowing a well informed staff many opportunities to educate their students about HIV infection.

18.12 Increase to at least 90 percent the proportion of cities with populations over 100,000 that have outreach programs to contact drug abusers (particularly intravenous drug abusers) to deliver HIV risk reduction messages. (Baseline data available in 1995)

Note: HIV risk reduction messages include messages about reducing or eliminating drug use, entering drug treatment, disinfection of injection equipment if still injecting drugs, and safer sex practices.

In 1989, only an estimated 10 to 20 percent of intravenous drug abusers were in treatment programs. Community outreach to contact intravenous drug abusers who are not in treatment is an important element of comprehensive community drug programs. Settings targeted by outreach should include street areas of drug sales and use, housing projects, prostitute "strolls," medical care facilities serving intravenous drug abusers (emergency rooms and hospitals), and criminal justice facilities.

In creating outreach programs, city governments should consider involving community groups that focus on the needs and concerns of racial and ethnic groups (e.g., blacks, American Indians, Hispanics, and Asian Americans). Community groups can help city-based outreach programs to be more effective by advising the programs on cultural sensitivity, common concerns of members of particular racial or ethnic groups, and potentially effective techniques for delivering risk-reduction messages to special populations.

18.13* Increase to at least 50 percent the proportion of family planning clinics, maternal and child health clinics, sexually transmitted disease clinics, tuberculosis clinics, drug treatment centers, and primary care clinics that screen, diagnose, treat, counsel, and provide (or refer for) partner notification services for HIV infection and bacterial sexually transmitted diseases (gonorrhea, syphilis, and chlamydia). (Baseline: 40 percent of family planning clinics for bacterial sexually transmitted diseases in 1989)

Baseline data source: State Family Planning Directors.

People with tuberculosis have higher rates of HIV infection; rates are also higher among people with sexually transmitted diseases such as gonorrhea, syphilis, and lymphogranuloma venereum than among people who do not have these conditions. In addition, neuropsychological symptoms are common among people with HIV infection. Clinics and facilities that treat HIV-correlated diseases have a unique opportunity to reach some populations who are at the highest risk for HIV infection, notably intravenous drug abusers and the partners of intravenous drug abusers. In addition, public health clinics and community health centers are the major health care access points for low-income women of childbearing age who may also be at high risk for HIV infection. All women of childbearing age with known high-risk behaviors should be routinely counseled and tested for HIV antibodies and be given contraceptive counseling as appropriate. Many groups who are at high risk are often unaware of the risk behaviors of their partners and frequently will not admit, or will underestimate, their own high-risk behaviors. Particular emphasis should be placed on training people to accurately assess their own risk of contracting HIV infection and transmitting the disease to others.

*For additional commentary, see Objective 19.11 in *Sexually Transmitted Diseases*. This objective also appears as Objective 5.11 in *Family Planning*.

18.14 Extend to all facilities where workers are at risk for occupational transmission of HIV regulations to protect workers from exposure to bloodborne infections, including HIV infection. (Baseline data available in 1992)

Note: The Occupational Safety and Health Administration (OSHA) is expected to issue regulations requiring worker protection from exposure to bloodborne infections, including HIV, during 1991. Implementation of the OSHA regulations would satisfy this objective.

Blood is the single most important source of HIV infection at the worksite. Thus, HIV infection control must focus on preventing exposures to blood. Health care and other workers should consider all patients as potentially infected with HIV and strictly follow infection control precautions.

The first of a series of recommendations related to the prevention of AIDS transmission in health care settings was presented in November 1982, before the etiologic agent of the disease was identified. Subsequent documents, including the Centers for Disease Control's *Recommendations for Prevention of HIV Transmission in Health-Care Settings*,⁵ emphasized the need for precautions when handling blood and body fluids of all patients, at all times (universal precautions), to minimize the risk of HIV infection among health care workers who are at risk for occupational transmission of HIV. Implementation and worker compliance have not been uniform. One study in 6 hospital emergency departments in areas of high HIV prevalence found the rate of worker compliance with CDC recommendations for wearing gloves during emergency procedures ranging from 45 to 99 percent.

OSHA published "Notice of Proposed Rulemaking on Bloodborne Diseases" in the *Federal Register* in May 1989. Mandatory regulations resulting from OSHA's effort should be in place early in the decade and near total compliance should be possible before the year 2000.

Personnel Needs

- Health and human services providers should receive training about HIV infection, high-risk behavior, and infection control measures at least once every 3 years.

Health and human services providers frequently come in contact with people who are infected with HIV or at risk of becoming infected. Thus, they can play an important role in preventing further transmission of the disease by helping to change the behavior of people with HIV infection. Providers also frequently come in contact with people whose behavior puts them at risk of acquiring the infection. Practitioners in primary care (physicians, nurses, nurse practitioners, physician assistants), mental health, dental health, emergency medical service, law enforcement, health education, social work, and substance abuse treatment should receive HIV training that can help them (1) avoid becoming infected, (2) use effective techniques to change the behavior of HIV-infected people to prevent further transmission, and (3) change the behavior of people whose actions put them at risk of becoming infected. Providers also need to be aware of any treatments that are available that may prolong the lives of infected people.

- Providers need improved training in human sexual behavior.

Primary care providers, including physicians, nurses, nurse practitioners, and physician assistants, are frequently presented with opportunities to counsel patients about prevention of transmission of HIV. However, most primary care providers are not trained in human sexuality, although such training is common among psychiatrists and

psychologists. As a result, many primary care providers are uncomfortable discussing sexual behavior with their patients. Each encounter between primary care providers and people infected with HIV and people at risk for HIV infection is an opportunity for prevention. If primary care professionals are to be fully effective in preventing the spread of HIV infection, they must know how to provide culturally relevant risk-reduction counseling. Human sexuality education should be part of curricula leading to professional degrees, as well as an integral part of continuing medical education. Curricula that address human sexual behavior should include instruction in the relationship of sexual behavior to the transmission of sexually transmitted diseases (including HIV), plus normal sexual development, the range of sexual expression, and cultural sensitivity. In 1989, 94 of 105 (84 percent) accredited medical schools reported specific instruction in sexual history taking; 83 percent reported instruction in behavioral issues related to homosexuality and intravenous drug abuse; and 74 percent reported training in other psychosocial and cultural aspects of AIDS.²

- Providers also need improved training in recognizing and responding to drug abuse among their patients.

Surveillance and Data Needs

Availability of Future Data

Some annual data from existing data sources are available to track Objectives 18.1, 18.2, 18.7, and 18.8.

Periodic surveys and/or supplements to existing surveys can help track Objectives 18.3, 18.4, 18.9, 18.10, 18.11, and 18.12.

New data sources are needed to track Objectives 18.5, 18.6, 18.13, and 18.14.

High Priority Needs

HIV and AIDS surveillance needs can be divided into four categories: (1) general nationwide surveillance of AIDS cases, AIDS mortality, and HIV prevalence; (2) estimates of potential exposure to the virus; (3) efficacy of new AIDS therapies; and (4) understanding why racial, ethnic, and low-income groups have higher infection rates than other groups. Most pressing is the need for a national surveillance system, with confidentiality protection, at the local, State, and national levels that can be used to monitor HIV infection and HIV-related diseases, including AIDS cases; to assess public knowledge, attitudes, and behavior; and to monitor program effectiveness.

- Our current knowledge of AIDS and HIV has led to an appreciation of the complexity of the factors that contribute to risk of infection. Data bases that can be used to estimate the number of people with high-risk behaviors should be expanded to increase understanding of both the factors that influence risk and the people who become infected.
- As experimental therapies are used more widely, surveillance to monitor changes in illness and death rates will be needed to judge the impact of therapy on the course of the HIV epidemic and progression to AIDS.
- Existing surveillance systems are already strained by additional data collection demands. As this strain threatens information quality, the ability to model the future course of the epidemic is jeopardized.

- Baseline data and epidemiologic information should be developed on nonopiate drug abusers, including intravenous, steroid, polydrug, or cocaine abusers and those whose use of nonintravenous drugs increases their risk for HIV infection (e.g., those exchanging sex for drugs).

Research Needs

In addition to the priorities of discovering a cure for AIDS and a vaccine against HIV infection, research is also needed on the social and behavioral aspects of sexual and drug use practices, especially as they differ among cultures in the United States, so that high-risk behaviors and related factors can be better understood. Such research is essential for developing effective methods for promoting safer sexual practices and abstinence from drug abuse. The most pressing needs include research on the following:

- The epidemiology of nonopiate drug abusers, both those who are intravenous polydrug or cocaine abusers and those whose use of nonintravenous drugs increases their risk for HIV infection (i.e., those exchanging sex for drugs).
- The factors leading to higher HIV prevalence among blacks and Hispanics than among whites.
- Effective means of modifying high-risk behaviors.

Related Objectives From Other Priority Areas

Alcohol and Other Drugs

- 4.4 Drug abuse-related emergency room visits
- 4.12 Access to treatment programs
- 4.19 Screening, counseling, and referral by clinicians for alcohol/drug problems

Educational and Community-Based Programs

- 8.4 Quality school health education
- 8.10 Community health promotion programs

Diabetes and Chronic Disabling Conditions

- 17.14 Patient education for chronic and disabling conditions
- 17.19 Employment of people with disabilities
- 17.20 Service systems for children with or at risk of chronic or disabling conditions

Sexually Transmitted Diseases

- 19.1 Gonorrhea
- 19.2 Chlamydia
- 19.3 Syphilis
- 19.5 Genital herpes and genital warts
- 19.8 Repeat gonorrhea infection
- 19.12 Sexually transmitted disease education in schools
- 19.15 Partner notification of exposure to sexually transmitted disease

Clinical Preventive Services

- 21.2 Receipt of recommended services
- 21.6 Provision of recommended services by clinicians

Surveillance and Data Systems

- 22.4 Gaps in health data

Baseline Data Source References

AIDS Surveillance System, Center for Infectious Diseases, Centers for Disease Control, Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.

American College Health Association Task Force on AIDS, American College Health Association, Alexandria, VA.

Food and Drug Administration, Public Health Service, U.S. Department of Health and Human Services, Rockville, MD.

General Accounting Office. *AIDS Education: Public School Programs Require More Student Information and Teacher Training*. Washington, DC: the Office, 1990.

Lewis, C.F., and Freeman, H.E. The sexual history taking and counseling practices of California primary care physicians. *Western Journal of Medicine* 147:165-167, 1987.

National AIDS Program Office, Public Health Service, U.S. Department of Health and Human Services, Washington, DC.

National Institute on Drug Abuse, Alcohol, Drug Abuse, and Mental Health Administration, Public Health Service, U.S. Department of Health and Human Services, Rockville, MD.

National Survey of Family Growth, National Center for Health Statistics, Centers for Disease Control, Public Health Service, U.S. Department of Health and Human Services, Hyattsville, MD.

References

- 1 American College Health Association. Task Force on AIDS, general statement on institutional response to AIDS. Rockville, MD: the Association, revised November 1988.
- 2 Bickel, J.; Jones, R.; and Biesiadecki, L. *HIV/AIDS in the Undergraduate Medical Education Program: A Survey of U.S. Medical Schools* Washington, DC: the Association of American Medical Colleges, April, 1989.
- 3 Centers for Disease Control. AIDS weekly surveillance report: United States. January 2, 1989. Atlanta, GA: U.S. Department of Health and Human Services, 1989.
- 4 Centers for Disease Control. Guidelines for effective school health education to prevent the spread of AIDS. *Morbidity and Mortality Weekly Report* 37(Suppl. S-2): 1988.
- 5 Centers for Disease Control. Condoms for prevention of sexually transmitted diseases. *Morbidity and Mortality Weekly Report* 37(9):133-137, 1988.
- 6 Centers for Disease Control. Quarterly report to the Domestic Policy Council on the prevalence and rate of spread of HIV and AIDS, United States. *Morbidity and Mortality Weekly Report* 37(14):223-226, 1988.
- 7 Centers for Disease Control. Relationship of syphilis to drug use and prostitution: Connecticut and Philadelphia, PA. *Morbidity and Mortality Weekly Report* 37(49):755-764, 1988.
- 8 Centers for Disease Control. Years of potential life lost before age 65 - United States, 1987. *Morbidity and Mortality Weekly Report* 38(2):27-29, 1989.
- 9 Centers for Disease Control. *Morbidity and Mortality Weekly Report* 39(7):110-119, 1990.
- 10 Centers for Disease Control. *HIV/AIDS Surveillance Report*. Atlanta, GA: U.S. Department of Health and Human Services, May 1990.
- 11 Curran, J.W.; Jaffe, H.W.; Hardy, A.M.; Morgan, W.M.; Selik, R.M.; and Donado, T.J. Epidemiology of HIV infection and AIDS in the United States. *Science* 239:610-616, 1988.
- 12 Des Jarlais, D.C.; Friedman, S.R.; and Novack, D.M. HIV-1 Infection among intravenous drug users in Manhattan, New York City, from 1977 through 1987. *Journal of the American Medical Association* 261:1008-1012, 1989.
- 13 Dondero, T.J., Jr.; Pappaioanou, M.; and Curran, J.W. Monitoring the levels and trends of HIV infection: The Public Health Services's HIV surveillance program. *Public Health Reports* 103(3):213-220, 1988.
- 14 Food and Drug Administration. *Condoms and Sexually Transmitted Diseases . . . Especially AIDS* DHHS Pub.No. (FDA) 90-4239. Rockville, MD: U.S. Department of Health and Human Services, 1990.
- 15 Friedman, S.R.; Des Jarlais, D.C.; and Sotheman, J.L. AIDS and self-organization among intravenous drug users. *International Journal of Addiction* 22:201-220, 1987.
- 16 Ginzburg, H.M.; Trainor, J.; and Reis, E. A review of epidemiologic Trends in HIV infection of women and children. *Pediatric AIDS and HIV Infection: Fetus to Adolescent* 1(1):11-15, 1990.
- 17 Handsfield, H.H., Kreher, B and Nicola, R.M. Trends in gonorrhea in homosexually active men: King County, Washington, 1989. *Morbidity and Mortality Weekly Report* 38(44):762-764, 1989.
- 18 Hessel, N.A.; Rutherford, G.W.; Lifson, A.R.; et al. "The Natural History of HIV Infection in a Cohort of Homosexual and Bisexual Men: A Decade of Follow Up." Abstract 4096. Proceedings of the IV International Conference on AIDS, Stockholm, Sweden, June 14, 1988.
- 19 National Center for Health Statistics. National Health Interview Survey. Centers for Disease Control, Public Health Service. Hyattsville, MD: U.S. Department of Health and Human Services, March, 1990.
- 20 Public Health Service guidelines for counseling and antibody testing to prevent HIV infection and AIDS. *Morbidity and Mortality Weekly Report* 36(40):509-514, 1987.
- 21 Report of the U.S. Preventive Services Task Force. *Guide to Clinical Preventive Services: An Assessment of the Effectiveness of 169 Interventions* Baltimore, MD: Williams and Wilkins, 1989.
- 22 Schumacher, M. The National Association of State Boards of Education. *HIV/AIDS Education Survey: Profiles of State Policy Actions* Washington, DC: the Association, 1989.